

16294900 WAIKANE STREAM AT ALTITUDE 75 FT, AT WAIKANE

LOCATION.--Lat 21°30'00", long 157°51'54", Old Hawaiian Datum, Hydrologic Unit 20060000, on right bank, 0.3 mi downstream from Waileeke Stream, 0.7 mi west of Waikane, and 1.2 mi northwest of Waiahole School.

DRAINAGE AREA.--2.22 mi².

PERIOD OF RECORD.--December 1959 to current year.

REVISED RECORDS.--WSP 1937: Drainage area, WDR HI-94-1: 1993 (M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 75 ft above mean sea level (from topographic map).

REMARKS.--Records computed by B. Shimizu. Records fair for discharges up to 200 ft³/s, and poor above that. Waiahole tunnel diverts ground water from tunnels upstream of station. Beginning early October, 2002, Waiahole Ditch began releasing water into Waikane Stream. Elevation of the Waiahole tunnel is 800 ft (from topographic map).

AVERAGE DISCHARGE Prior to release from Waiahole Ditch in October 2002--42 years (water years 1961-2002), 8.50 ft³/s (6,160 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft³/s, February 4, 1965, gage height, 10.76 ft, from rating curve extended above 120 ft³/s on basis of slope-area measurements at gage heights 4.88 ft, 9.46 ft, and 10.76 ft; minimum, 0.76 ft³/s, October 27, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

	Date	Time	Discharge (ft ³ /s)	Gage height (ft)		Date	Time	Discharge (ft ³ /s)	Gage height (ft)
	Nov 29	2030	1,210	6.72		Mar 2	0330	737	5.27
	Dec 7	1330	1,610	7.79		May 11	1930	1,270	6.92
	Feb 27	1430	794	5.45		Aug 4	0515	*2,000	*8.61

Minimum discharge, 5.6 ft³/s, Oct. 29, gage height, 1.57 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	6.3	52	31	16	16	19	14	11	10	7.7	8.9
2	6.8	6.3	37	110	14	137	21	13	11	9.8	14	8.9
3	7.0	6.3	57	68	13	31	25	13	11	9.4	47	8.6
4	7.1	6.3	125	27	18	25	19	13	11	9.2	268	8.4
5	6.9	6.5	114	21	19	20	16	13	10	9.2	31	9.0
6	6.9	6.6	50	18	15	17	15	14	10	11	21	18
7	7.2	6.5	182	17	39	17	14	48	10	9.1	20	9.1
8	7.6	7.0	65	16	29	21	13	15	11	9.4	16	8.6
9	8.1	6.2	37	15	17	15	14	13	11	9.0	15	8.9
10	7.1	6.2	29	14	15	14	28	22	14	8.8	15	9.3
11	8.1	6.2	24	13	14	14	22	129	14	11	15	8.6
12	8.2	6.2	20	13	13	30	31	46	13	9.4	13	9.6
13	7.2	6.5	20	13	13	18	21	26	11	8.9	12	8.4
14	8.7	7.2	17	17	12	17	17	25	11	8.7	12	10
15	11	6.6	16	13	12	14	23	60	10	8.6	11	8.6
16	8.7	6.9	15	12	12	12	25	31	12	8.3	11	8.5
17	9.4	7.4	15	12	11	12	16	25	21	8.2	11	8.3
18	8.3	9.4	14	11	11	12	14	23	12	8.2	10	8.1
19	7.2	7.9	13	11	11	11	14	19	12	8.3	10	8.7
20	6.8	6.6	13	11	11	14	35	16	11	8.1	9.8	8.0
21	6.6	6.3	12	12	10	74	23	15	11	8.1	9.9	8.2
22	6.6	6.4	12	21	10	34	20	14	12	8.0	9.4	8.3
23	6.5	6.6	12	16	11	41	16	14	11	8.0	9.3	9.8
24	6.5	7.0	11	12	11	25	15	13	10	8.0	10	10
25	6.3	6.4	11	50	10	28	14	13	9.9	8.3	9.5	11
26	6.3	6.3	11	34	24	34	59	12	9.8	8.2	11	8.8
27	6.3	6.1	11	18	181	23	20	12	9.7	8.9	10	8.4
28	6.3	6.5	11	15	38	19	16	12	10	8.2	9.9	8.4
29	6.3	189	10	14	20	54	15	11	9.8	8.0	9.7	11
30	6.3	252	18	17	---	45	14	11	11	8.0	9.0	8.9
31	6.3	---	20	15	---	23	---	12	---	7.8	8.7	---
TOTAL	225.4	627.7	1,054	687	630	867	614	717	341.2	272.1	675.9	277.3
MEAN	7.27	20.9	34.0	22.2	21.7	28.0	20.5	23.1	11.4	8.78	21.8	9.24
MAX	11	252	182	110	181	137	59	129	21	11	268	18
MIN	6.3	6.1	10	11	10	11	13	11	9.7	7.8	7.7	8.0
AC-FT	447	1,250	2,090	1,360	1,250	1,720	1,220	1,420	677	540	1,340	550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

MEAN	6.49	11.2	9.64	11.5	11.9	12.6	10.2	9.29	5.46	6.24	5.59	5.33
MAX	31.0	55.7	44.1	45.6	65.5	53.1	49.3	43.9	16.2	30.2	25.0	22.1
(WY)	(1992)	(1966)	(1988)	(1988)	(1994)	(1982)	(1963)	(2002)	(1977)	(1987)	(1967)	(1986)
MIN	1.55	2.13	2.23	1.67	1.78	2.03	2.65	1.98	1.83	1.76	1.58	1.38
(WY)	(1985)	(1963)	(1978)	(1977)	(1978)	(1978)	(1998)	(2000)	(1984)	(1984)	(1984)	(1984)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1960 - 2004
ANNUAL TOTAL	4,711.5	6,988.6	
ANNUAL MEAN	12.9	19.1	8.77
HIGHEST ANNUAL MEAN			19.1
LOWEST ANNUAL MEAN			3.33
HIGHEST DAILY MEAN	252	Nov 30	868 Feb 4, 1965
LOWEST DAILY MEAN	3.8	Jan 1	1.1 Oct 17, 1975
ANNUAL SEVEN-DAY MINIMUM	4.2	Jan 1	1.3 Sep 19, 1984
ANNUAL RUNOFF (AC-FT)	9,350	13,860	6,350
10 PERCENT EXCEEDS	16	31	14
50 PERCENT EXCEEDS	7.5	12	4.2
90 PERCENT EXCEEDS	6.0	6.9	2.1